CATTLE HANDLING FACILITIES PROGRAM

(Approved June 15, 2001)
(Amended December 16, 2005)

The following guidelines and recommendations have been developed for the establishment of county programs seeking to improve cattle marketing, health and production by installing handling facilities and conducting preventive and curative health programs, utilizing County Agricultural Development Funds.

This document provides program goals, eligible investments, and implementation guidelines for agencies seeking to initiate a local program. Guidelines are considered to be minimum standards by which a program is to be implemented.

Questions concerning these guidelines should be directed to the Governor's Office of Agricultural Policy at (502) 564-4627. Application for funds must be directed through the local County Agricultural Development Council(s).

I. Program Goals

The goals of the program are to:

- Improve net farm income through improved cattle corrals and handling facilities for beef and dairy cattle to allow for best management and health practices that augment efficient production and marketing opportunities.
- Encourage science-based decisions on cattle management, handling and health programs on the farm.
- Impact a high number of beef and dairy producers.
- Minimize animal and human injury and stress during treatment and handling operations.
- Change producer attitudes about cattle management and handling.

II. Eligible Cost Share Items

A summary of eligible investments that could receive support from County Agricultural Development Funds within the guidelines stated in this document may include any or all of the following:

A. Handling facilities and equipment for beef cattle.
B. Secure lot or pen for mature beef bulls.
C. Pens for weaning calves.
D. Handling facilities and equipment for dairy cattle.
E. Temporary or Permanent Shade

A. Handling Facilities and Equipment for Beef Cattle

Goal: To improve the long-term profitability of beef cattle enterprises by investments in on-farm working facilities to enable producers to conduct necessary health and management practices such as vaccinating, de-horning, de-worming, growth implanting, pregnancy checking, etc.

Kentucky has over 40,000 beef producers, many of whom have no handling or working facilities. Installation of these facilities, coupled with use of approved health and management/handling practices, has the potential to dramatically improve cattle enterprise efficiency and increasing market value, resulting in increased profitability. Well-designed corrals will reduce handling time, increase producer/operator safety, and minimize animal and human injury and stress during treatment and handling.

It is recognized that every handling facility can be different from each other because of different farm characteristics. Therefore, different corral layouts need to be adapted to different farm needs. However, for a corral to work optimally there is a need to comply with recommendations related to facility planning (location, response to light and movement, flooring, etc.) and with specifications related to size and layout of the different components. Table 1 gives specifications related to the main components of a cattle-handling facility. Facilities should be constructed or upgraded according to these specifications.

Needs assessment: The program administrator shall use a questionnaire (Appendix B) to assess status of existing facilities and to help evaluate producer needs. The evaluation tool consists of a questionnaire to which the producers answers “yes” or “no” to most questions. Based on producer’s answers the program administrator will decide which component(s) will be funded on a cost-share basis.

COST SHARE ITEMS

1. **Commercial headgate**: Herd health care is almost impossible without a headgate. It is usually considered the most important feature of the entire facility. It should be sturdy, safe, easily operated, and have a quiet action. The recommended types for small operations (typical of Kentucky) are the self-catcher and full-opening stanchion. Curved stanchions are not recommended.

2. **Holding chute**: The holding chute is located immediately behind the headgate and fastened to it. It can be constructed with wood or metal. Although not absolutely necessary, useful features include: (i) width adjustment for different size animals, (ii) removable side panels for easy access to the animal, (iv) a floor with non-slip surface, and (v) a roof over both headgate and holding chute so that cattle can be worked regardless of weather. Size specifications are given in Table 1.

3. **Squeeze**: The squeeze can be used as an alternative to the holding chute. In this case, the squeeze is located immediately behind the headgate and fastened to it. If the squeeze is shared among several producers, then it can be located right in front of the holding chute. The squeeze action provides complete restraint of the animal. The sides should move in and out together so that the animals are not thrown out of balance. They can be manually or hydraulic operated. As with the holding chute, squeezes can have vertical or "V" shaped sides. "V" shaped sides support the cattle to prevent them from going down and choking. Size specifications are given in Table 1.

4. **Curved or offset working chute**: The working chute leads cattle from the crowding pen to the holding chute/squeeze. The purpose of a working chute is to hold cattle in a line so that they can enter the treatment or loading are one at a time. Working chute sides should be solid. Solid walls prevent the animals from seeing the squeeze, people, and the truck until it is almost there. Sloping sides are recommended, especially if the facility is used to handle both cows and calves. Sloped sides restrict the animal's feet and legs to a narrow path, which in turn reduces balking and helps prevent an animal from turning around. Curved chutes work best for animals waiting treatment. It takes advantage of the cattle's natural circling behavior. An alternative to curved chutes is an offset chute. In this case, part of the working chute is offset by 30^{o} (maximum), so that cattle are prevented from seeing the squeeze until they are almost there. Straight working chutes are not recommended. Whenever possible the working chute should be at least 20 foot long regardless of cowherd size. Size specifications are given in Table 1.

5. **Crowding tub and gate**: A crowding tub or pen is used to funnel cattle into the working chute. A properly designed crowding area decreases the labor required to work cattle. Use small crowding pen or tub that handles eight to ten cattle at a time. Size specifications are given in Table 1. Funnel shaped crowding pens should be constructed with one straight side. The other side should enter the chute at an angle of about 30^{o}. The large end of the funnel must be 8 to 12 feet wide. A circular crowding area with solid sides works best. A solid gate should be used to keep cattle from seeing through it. It is recommended that the pivot post be constructed out of a 3 to 4-in steel pipe embedded in concrete. Gate height can be adjustable. The crowding gate must be equipped with a self-locking gate latch. Several latching points are needed if the height is adjustable.

6. **Side panels**: Solid sides on working chutes and crowding pens prevent the animals from seeing people, equipment and other outside distractions, thus keeping them calm. Side panels can be constructed using wood or steel. They can also be constructed using surplus material (used guard rails, steel grain bin panels, fiberglass, etc.). There are several advantages and disadvantages related to the use of surplus materials, and care should be exercised in order to guarantee that injuries to both animals and humans are minimized. A 6-in gap from ground level to the lowest board on the chute allows for manure cleanout.

7. **Gates for sorting and holding pens**: Easily operated, strong gates that swing both ways are one of the most important features of a cattle handling facility. Gates must be preferably located in the corners of pens or other convenient place where it is natural for cattle to come together. Gates used to sort cattle and to bring them into a holding pen do not need to have solid sides, but they need to be sturdy. It is recommended that the pivot post be constructed out of a 3 to 4-in steel pipe embedded in 3 to 4-ft of concrete backfill. The gates themselves can be constructed out of 2-in diameter pipes with 8-in spaced sucker rods. A self-locking gate latch is recommended for all gates.

8. **One-way gates**: One-way gates in working chutes allow cattle to move forward in a working chute, but automatically prevent them from backing up. They must be located 12-ft ahead of the holding chute or squeeze. For uniform sized cattle a chain makes a good one-way gate.

9. **Blocking gates**: Blocking gates prevent unwanted animal movement. They are usually placed at the entrance and exit of the working chute. The gate at the entrance of the chute should be “see-through” so that cattle can see an escape path. The gate at the exit of the chute should be solid. Make sure that the gate slides away from the catwalk, if any.

10. **Loading chute**: Cattle can be loaded on stock trailers from the working chute. However, cattle move better directly from the crowding pen to the loading chute, rather than moving through a long working chute. Access to an all-weather road is important. If possible, locate the loading chute outside the corral and pasture to keep trucks out of lots and reduce the risk of diseases. Desirable characteristics for a loading chute include curved approach, sidewalls, telescoping side panels, self-aligning dock platform, and circular crowding area. It is also desirable to locate the loading chute near scales. Size specifications are given in Table 1.

11. **Scale**: Scales are essential for performance testing, evaluating gains, and determining sale weights. Different types and sizes of scales are useful in various types of cattle handling operations. They can be for weighing a single animal or a group of animals. Scales can either be mechanical, hydraulic load cell, or electronic load cell style. A single animal scale (usually portable) is most useful when determining rate of gain, and also in selecting breeding stock or determining how much weight bred cows are gaining or losing. Portable single animal scales can be either installed ahead of the headgate or placed in line with the working chute by removing one of the gate sections. Single scales can have their own frame or cage for holding the animal or can be mounted in the form of load cells under a conventional cattle squeeze. The group scale can be utilized for many purposes such as weighing group of animals, hay and feed ingredients. Group scales also need a cage to hold cattle.

12. **Flooring**: Gravel covered filter fabric (geotextile) pads in crowding pens and working chutes can prevent mud from becoming a problem if facilities are frequently used. Suggested construction involves use of a geotextile filter-fabric base, covered with 4 to 6 inches of #3 or #4 crushed limestone rock, and topped with 2 to 3 inches of sifted lime or “dense grade” (sometimes called “road mix”). This is a finer material with a maximum aggregate size of ¾ inches that improves animal comfort and well being, and reduces the potential of foot injuries. Alternatively, a rough surfaced concrete filling in the chute and around the headgate prevents formation of depressions and gives cattle solid footing. Do not use smooth concrete flooring. If you use concrete, apply a rough finish.

13. **Creep gate, creep feeder, mineral feeder**:

14. **Renovation of existing beef barns** or existing tobacco barns into beef facilities

15. **Construction of new beef facilities** where no buildings exist for renovation

16. **Manure collection** and **distribution equipment** (excluding manure spreaders)

17. **Feed ways, forage mixers, feeding equipment systems, automatic waterers**

18. Equipment essential to provide **on-farm value-added processing**

19. **Computer hardware and software** to assist in performance record keeping and financial management

20. One half the cost of participation in the **Kentucky Farm Business Management Program**

21. **Promotional and advertising materials** in an amount not to exceed $1,000, excludes products or services provided by the KY Department of Agriculture or other state programs.

22. **On-farm direct-to-consumer sales** cost-share items:

    a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

       [Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]

    b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities

    c. Refrigerated equipment for storing product (non-motorized)

    d. Display equipment, including refrigerated equipment, to assist in selling of product

Prerequisites

- Minimum herd size: 10 mature cows (Average herd size in KY is 26), or backgrounding 35 cattle.

- Materials are cost shared on a 50-50 basis with funds disbursed on a reimbursement basis.

- If the application is successful the producer will be required to achieve Beef Quality Assurance certification.

- Producer must provide receipts for each item being funded. If funds are being borrowed, then a legal description of each item offered as collateral must accompany request for funds.

- Funds will reimburse material expenses and vendor labor. Labor provided by the individual applicant can only be considered for project MATCH. Documented grower labor may be used as match ($16/hour), not to exceed 25% of total project cost. Applicant labor is NOT eligible for cost-share. [For construction projects.]

Table 1. Specifications for cattle handling facilities

Facility component	Recommended dimensions		
	Up to 600 lbs	600 to 1,200 lbs	Over 1,200 lbs
Holding pen			
Space per head (ft^2)	14	17	20
Pen fence			
Height (in)	60	60	60
Post spacing (ft)	8	8	8
Post depth in ground (in)	30	30	30
Crowding pen[1]			
Space per head (ft^2)	6	10	12
Post spacing (ft)	4 - 6	4 - 6	4 - 6
Solid wall height (in)	45	50	50 - 60
Working chute[2]			
Straight side (in)	18	22	28
Fully tapered - width at 32-in height (in)	18	22	28
Fully tapered - width at bottom (in)	15	16	18
Minimum length (ft)	20	20	20
Maximum curve angle (degrees)	15	15	15
Length for 16-foot outside radius (ft)	45	45	45
Solid wall height (in)	45	50	50 - 60
Overall height - top rail (in)	55	60	60 - 72
Chute fence			
Post spacing (ft)	6	6	6
Post depth in ground (in)	36	36	36
Holding chute/squeeze			
Height (in)	45	50	50
Width			
Straight sides (in)	18	22	28
V-shaped sides, width at bottom (in)	6 - 8	8 - 12	14 - 16
Length - with headgate (ft)	5	5 - 8	5 - 8
Loading chute			
Width (in)	26	26	26 - 30
Minimum length (ft)	12	12	12
Maximum rise (in/ft)	3.5	3.5	3.5

1 – Crowding pen: it must be of either circular shape (1/4 or 1/2 circle) or funnel shape.
2 – Working chute: it should be curved or offset (offset angle at 30^o maximum).

B. Secure Lot or Pen for Mature Beef Bulls

Goal: To encourage development of facilities needed to control the herd bull, improve health and fertility, thus facilitating a controlled, defined calving season.

Bull performance and working life are affected by management and housing. Good bull management ensures (i) bull fertility at the start of the breeding season, (ii) good health, (iii) sound, well trimmed feet, (iv) proper feeding, (v) comfortable, clean, dry and draft-free housing, and (vi) minimal risk of injuries to handlers, bulls, and animals to be bred. A bull pen must provide a healthy environment, which encourages good management with a minimum of risk to both the bull and beef producer.

This program is for constructing beef bull lots or pens. These funds shall not be used for building perimeter fences. In order to qualify for funding, location and design of the lot shall be consistent with the producer's Agricultural Water Quality Plans.

COST SHARE ITEMS

1. **Fences**: Posts, planks, pipe rails, and related materials such as fence chargers, ground rods, voltmeters, etc. Two-strand electric fences can control bulls trained to recognize an electric fence before being turned out. Provide a more durable fence (with 2 ½ -in pipe rails or 2 x 6 planks) in areas near the farmstead and places where the possibility of bulls getting out can cause a dangerous situation. It is recommended that fences be 5 to 6-ft high and the distances between boards or rails less than 10-in. Posts should be at least 5-in top diameter and set a minimum of 3-ft in the ground. Two inch steel pipe posts set 3-ft in concrete with welded pipe, rod, pipe and cable, or attached continuous metal fence provide excellent security, long life and low maintenance but is more costly and difficult to construct. Welded cattle panels stapled on wood posts set on 8-ft centers with a top and middle rail can be a lower cost, less durable alternative.

   Provide at least 200 ft^2 per bull when housing bulls for less than a week at a time. Keeping a bull in a small area for too long can lead to lameness and breeding difficulties. Provide an exercise area in addition to the bull pen for bulls that are housed for most of the year. Provide 1,200 to 1,500 ft^2 per bull. Provide a safety pass and/or safety post in all bull pens in case of emergencies. Use 14-in wide wall or fence openings or vertical steel posts across the corner of the pen.

2. **Gates**: These should be strong, easily operated, and should swing both ways. Gates must be preferably located in the corners of pens or other convenient place where it is natural for cattle to come together. It is recommended that the pivot post be constructed out of a 3 to 4-in steel pipe embedded in 3 to 4-ft of concrete backfill. It is recommended that the gates themselves can be constructed out of 2-in diameter pipes with 8-in spaced sucker rods. A self-locking gate latch is recommended for all gates.

3. **Waterers**: Water bowls must be anchored firmly (preferably bricked up below) to prevent damage to or by the bull. Provide 27 gallons of water per bull, per day during hot weather. Water depths of 6 to 8-in are preferred. Use deeper tanks where supply capacity is limited. Consider float-operated waterers for a fresh supply of water. Frost-free waterers are commercially available. Heavily insulated non-heated stock waterers are also available.

4. **Feed bunk/trough**: Provide 30 to 36-in of feeder space for each bull. Fence line feeding may use pre-cast concrete bunks, wood plank bunks, or through the fence feeding on the ground or a concrete slab. Lumber used for feeding bunk lines should be CCA pressure preservative treated. Concrete used for feeding slabs or bunks needs to be high quality to resist corrosive effects of salts and minerals in feed. A concrete mix of 6 bags of air-entrained cement per yard of concrete with a strength of 4,500 PSI is generally recommended. Bunk design should minimize areas for accumulation of waste and spilled feed, which contributes to odor, fly and rodent problems.

5. **Flooring**: Gravel covered filter fabric (geotextile) pads around the waterer and feed bunk area can prevent mud from becoming a problem. Suggested construction involves use of a geotextile filter-fabric base, covered with 4 to 6 inches of #3 or #4 crushed limestone rock, and topped with 2 to 3 inches of sifted lime or “dense grade” (sometimes called “road mix”). This is a finer material with a maximum aggregate size of ¾ inches that improves animal comfort and well being, and reduces the potential of foot injuries. Alternatively, a rough surfaced concrete filling around the waterer and feed bunk prevents formation of depressions and gives cattle solid footing. Do not use smooth concrete flooring. If you use concrete, apply a rough finish.

Prerequisites for bull lots and pens:

- Minimum herd size: 10 mature cows (Average herd size in KY is 26).
- Materials are cost shared on a 50-50 basis with funds disbursed on a reimbursement basis.
- If the application is successful the producer will be required to achieve Beef Quality Assurance certification.

C. Pens for weaning calves

Goal: To improve management at weaning. This is vital for the success of cow-calf operation. Besides calving, the most stressful period in the life of a calf is at weaning. This time period is vital to the cow-calf producer also. Weaning is the end of the production process for most operators and represents the majority of annual income. Minimizing the stress the calf faces helps ensure that the year's work was not wasted and the calf continues through the production process to a consumer's plate. Weaning is one of the primary factors affecting calf marketability.

This program is for constructing weaning calf pens. These funds shall not be used for building perimeter fences. In order to qualify for funding, location and design of the lot shall be consistent with the producer's Agricultural Water Quality Plans.

COST SHARE ITEMS

1. **Fences**: Posts and planks. Corral line fence for newly weaned calves needs to ensure good restraint and safety. A wide variety of materials are used in building corrals. Most typical would be post and rail or plank fence. Fence visibility is important in weaning pens. Calves easily see plank fences (2 x 6 planks). Smooth wire and cable fences are not recommended unless at least one plank is attached to the fence at calf eye level. It is recommended that fences be 5-ft high and the distances between boards or rails less than 10-in. Posts should be at least 5-in top diameter and set a minimum of 3-ft in the ground. Welded cattle panels stapled on wood posts set on 8-ft centers with a top and middle rail can be a lower cost, less durable alternative. Four or five stand high tensile smooth wire electric fences with alternate energized and grounded wires is used in some cases after cattle have been weaned and on feed, been trained in a conditioning pen, and where additional fence around the feeding yard provides further security in case of escapes.

   Small pens are preferred over larger lots because large lots or traps encourage fence walking and make it more difficult for calves to find feed and water. Provide at least 100 to 150 ft^2 per head in lots that provide good footing. Limit pens to 60-head per pen.

2. **Gates**: These should be strong, easily operated, and must swing both ways. Gates must be preferably located in the corners of pens or other convenient place where it is natural for cattle to come together. The pivot post should be constructed out of a 3 to 4-in steel pipe embedded in 3 to 4-ft of concrete backfill. The gates themselves can be constructed out of 2-in diameter pipes with 8-in spaced sucker rods. A self-locking gate latch is recommended for all gates.

3. **Waterers**: Water is an important consideration in weaning pens. Weaning calves will consume less than 5 gallons per head per day during cold weather and up to 15 gallons per head per day in hot summer conditions. It is recommended a foot of tank be provided for every 20 head or one waterer or drinking bowl space provided for every 25 to 30 head in the lot. Water depths of 6 to 8-in are preferred. Use deeper tanks where supply capacity is limited. Waterers or tanks placed in the fence line allow new arrivals to quickly find the water as they travel the fence line acquainting themselves with the pen. However, waters located in the pen provide more opportunity for timid animals to drink.

Consider float-operated waterers for a fresh supply of water. Of the many waterer choices commercially available, considerations in addition to cost include durability, ease of cleaning, energy cost, and protection from freezing. Frost-free and heavily insulated non-heated waterers are commercially available.

4. **Feed bunk/trough**: Depending on calf size, 18 to 26-in of bunk space per calf should be provided when starting calves, for calves limit fed or fed just once a day. Started calves being fed twice a day to appetite should have 8 to 11-in of bunk per calf. If grain is self-fed, allow 3 to 4-in of feeder trough or bunk per calf. Generally 10-in of bunk per calf is required for self fed roughage. Feed bunks should be located to encourage calves to eat and provide convenience in feed delivery. Considerations include drainage and wind protection. Calves prefer to eat downwind. Drainage should be away from bunks. Preference (depending on site) is generally for bunks or for the bunk line to be oriented north to south for sun exposure and minimizing frozen manure pack build up in the winter. Temporarily placing portable bunks against and perpendicular to the fence line is an excellent technique to achieve the goal of bunk-breaking calves. Fence line feeding may use pre-cast concrete bunks, wood plank bunks, or through the fence feeding on the ground or a concrete slab. Lumber used for feeding bunk lines should be CCA pressure preservative treated. Concrete used for feeding slabs or bunks needs to be high quality to resist corrosive effects of salts and minerals in feed. A concrete mix of 6 bags of air-entrained cement per yard of concrete with a strength of 4,500 psi is generally recommended. Generally, bunk height for calves should be less than 30-in from the ground. Bunk design should minimize areas for accumulation of waste and spilled feed, which contributes to odor, fly and rodent problems.

5. **Flooring**: Gravel covered filter fabric (geotextile) pads around the waterer and feed bunk area can prevent mud from becoming a problem. Suggested construction involves use of a geotextile filter-fabric base, covered with 4 to 6 inches of #3 or #4 crushed limestone rock, and topped with 2 to 3 inches of sifted lime or “dense grade” (sometimes called “road mix”). This is a finer material with a maximum aggregate size of ¾ inches that improves animal comfort and well being, and reduces the potential of foot injuries. Alternatively, a rough surfaced concrete filling around the waterer and feed bunk prevents formation of depressions and gives cattle solid footing. Do not use smooth concrete flooring. If you use concrete, apply a rough finish.

Prerequisites for pens for weaning calves:

- Minimum herd size: 10 mature cows (Average herd size in KY is 26).
- The producer should have a minimum working facility, such as crowding pen, working chute, holding chute, and headgate, before he applies for the weaning calves program.
- Materials are cost shared on a 50-50 basis with funds disbursed on a reimbursement basis.
- If the application is successful the producer will be required to achieve Beef Quality Assurance certification.

D. Handling Facilities and Equipment for Dairy Cattle

Goal: To improve the long-term profitability of dairy cattle enterprises, both milk producers and heifer growers, by investments in on-farm working facilities to enable producers to conduct necessary health and management practices such as measuring temperature as a step in preventive health management, vaccinating, de-horning, de-worming, pregnancy checking, artificial insemination and hoof trimming.

Kentucky ranks 18th nationally in the total number of milk cows at 130,000 on 2,000 farms. Many dairy producers have no handling or working facilities. Installation of these facilities, coupled with use of recommended health and management/handling practices, has the potential to dramatically improve dairy cattle enterprise efficiency and profitability. Well-designed handling facilities will improve animal care, reduce handling time, increase producer/operator safety, and minimize animal and human injury and stress during treatment and handling.

Needs assessment: Program administrators shall use a questionnaire (Appendix C) to assess the status of existing facilities and to help evaluate producer needs. The evaluation tool consists of a questionnaire to which the producers answers “yes” or “no” to most questions. Based on producer’s answers the program administrator will decide which component(s) will be funded on a cost-share basis.

COST SHARE ITEMS

1. **Commercial headgate**: Herd health care is almost impossible without a headgate. It is usually considered the most important feature of the entire facility. A headgate located in a cross-over alley in the freestall barn may form the basis for a sorting and restraint system. Alternatively, a headgate may be placed at the end or in the corner of a barn in combination with a chute and appropriate pens and lanes. Headgates should be sturdy, safe, and easy to operate, and have a quiet action. Select a gate that opens fully top to bottom rather than the “V” shaped gates often used with beef cattle.

2. **Holding chute**: The holding chute is located immediately behind the headgate and fastened to it. It can be constructed with wood or metal. Useful features include: (i) removable side panels for easy access to the animal, and (ii) a floor with non-slip surface. Tapered wall chutes are not suited for dairy cows. Equipment designed for beef cattle should be closely examined from the standpoint of dairy operations prior to its purchase.

3. **Headlock stanchions**: Placed along a feed manger for restraint of animals. Each headlock stanchion is equipped with a self-locking feature that is actuated when the cow puts her head in a stanchion and reaches for feed. Consider self-locking units that can be opened individually or as a group. In order to catch all or a majority of the cows requires at least as many stanchions as there are cows in the group. The smallest width for the installation of a headlock stanchion for a lactating cow is 2-ft.

4. **Catch lanes**: In milking parlors where cows travel in a single lane as they exit, individual animals may be easily diverted. Two parallel lanes, one for returning cows to the housing area, the other for catching cows, may be used for sorting cows for treatment as they exit the parlor. Cows can be held in a catch lane or can be moved into a pen

equipped with self-locking stanchions. Catch lanes width should be 32 to 36-in. Fence work on either side should be 4 to 5-ft high and contain smooth horizontal rails.

5. **Management rails**: These are becoming a popular alternative to restrain a small group of cows for a short time as they leave the milking center. Management rails restrain a group of cows by positioning them closely together in herringbone fashion. The rails are placed parallel to each other allowing a clear opening width of 5-ft. The top of the rails is typically 36 to 40-in above the ground. A second rail (5-ft from the ground) on the head side, located directly above the lower rail, discourages cows from attempting to jump over the front rail. Gates or restraining bars at each end help to position and restrain the group. Each management rail should hold the same number of cows as one side of a double-side parlor, allowing 28-in along the rail length per cow.

6. **Gates for sorting and holding pens**: Proper placement and design of gates makes them an integral part of an animal restraint and handling system. Manually or automatically (through electronic cow ID) controlled cutting gates permit sorting of cows from a single return lane into the parallel catch lane. Gates must be located in the return lane near the rear of the parlor, at the extreme end of a return lane, or beyond the return lane. Gates used to sort cows and to bring them into a catch lane do not need to have solid sides, but they need to be sturdy. Gates should be a minimum of 5.5-ft high to discourage jumping and 16 to 18-in off the ground. Open space between the gate rails should be less than 10-in for milking cows and less for smaller animals. The pivot post must be constructed out of a 3 to 4-in steel pipe embedded in 3 to 4-ft of concrete backfill. The gates themselves can be constructed out of 2-in diameter pipes with 8-in spaced sucker rods. A self-locking gate latch is recommended for all gates.

7. **Treatment stall**: A single stall can be used for treatment. Access to both sides of the cow must be provided. The cow's head may be restrained with a swing stanchion that can lock into position with a removable bar. Provide a sturdy ring in the wall in front of the stall for further restraint. Provide three rings (one above cow's shoulders, another above the tailhead, and a third 4 to 6-ft behind the cow) in the ceiling over the centerline of the stall for lifting points. The lift rings and the ceiling must be strong enough to support the cow's weight.

8. **Treatment pens**: Any pen in which animals will be kept for extended periods of time should be a minimum of 12-ft x 12-ft. Construction of pens should be sufficiently strong to withstand abuse by 1,400 lb cows and equipment operators. Treatment pens should have continuously running frost-proof water and feed space. Smaller pens for individual cows should be equipped with individual stanchions, larger pens equipped with a section of headlock stanchions.

9. **Loading chute**: Cows can be loaded on stock trailers from a holding or crowding pen. Access to an all-weather road is important. If possible, locate the loading chute outside the barn and pasture to keep trucks out of lots and reduce the risk of diseases. Desirable characteristics for a loading chute include curved approach, sidewalls, telescoping side panels, self-aligning dock platform, and circular crowding area. Size specifications are given in Table 1.

10. **Hoof trimming table or chute**: Facilities designed specifically for foot care allows proper restraint of feet, dramatically improving the care of the cow and safety of the operator. Commercially built chutes are basically two types: (i) hoof trimming tables

where cows are restrained and laid on their side for easy access to the feet, and (ii) a chute with restraining features that allow work to be done on any foot with the cow standing.

11. **Scale**: Scales are essential for performance testing, evaluating gains, and determining sale weights. Different types and sizes of scales are useful in various types of cattle handling operations. They can be for weighing a single animal or a group of animals. Scales can either be mechanical, hydraulic load cell, or electronic load cell style. A single animal scale (usually portable) is most useful when determining rate of gain, and also in selecting breeding stock or determining how much weight bred cows are gaining or losing. Portable single animal scales can be either installed ahead of the headgate or placed in line with the working chute by removing one of the gate sections. Single scales can have their own frame or cage for holding the animal or can be mounted in the form of load cells under a conventional cattle squeeze. The group scale can be utilized for many purposes such as weighing group of animals, hay and feed ingredients. Group scales also need a cage to hold cattle.

Prerequisites for handling facilities and equipment for dairy cattle:

- Minimum herd size: 40 milking cows/20 dairy heifers
- Materials are cost shared on a 50-50 basis with funds disbursed on a reimbursement basis.
- $3,000 is the maximum for dairy facilities. If the application is successful the producer will have to attend an educational session related to dairy health management.

E. Temporary or Permanent Shade

Material costs necessary for the construction of temporary or permanent shade for cattle. (excludes trees)

Prerequisites:

- All funds will be disbursed on a reimbursement basis.
- Producer must provide receipts for each item being cost-shared.
- Producer must attend an educational session and provide a budget, prior to receiving cost-share funds.
- Funds will reimburse material expenses and vendor labor. Labor provided by the individual applicant can only be considered for project MATCH. Documented grower labor may be used as match ($16/hour), not to exceed 25% of total project cost. Applicant labor is NOT eligible for cost-share. [For construction projects.]

III. Application Procedures

A. Guidelines for Local Agency Application for Program Administration

1. The local agency must be qualified and willing to administer the full responsibilities of the program. A tax identification number, a letter expressing a willingness to administer the program, and an indication of specific individuals that will be responsible for administering and reporting on the program must be included in the application.

2. Regional agencies may participate as grantees, if Agricultural Development Councils from the region concur. Regional grantees will be required to account for Agricultural Development Funds on a county-by-county basis and may spend County funds only in the County from whose account funds are drawn, unless the respective County Agricultural Development Council has agreed to fund expenditures outside its county boundary.

3. The program administrator shall identify two co-signers for the purpose of signing checks and disbursing funds from the program's account. The program administrator shall indicate who they are and their position within the organization.

4. Either the fiscal agent or the individuals who sign checks for the program shall be bonded or appropriately insured at a level sufficient to cover the amount of the funds being administered. Documentation of bonding or appropriate insurance shall be submitted with the signed legal agreement.

5. The local agency must communicate in the application the activity and scope of existing related county programs supporting the eligible investment areas in Agricultural Diversification that farmers can access through other agencies. Need for a new program must be clearly evident in the application.

6. The *County Model Program Application*, including cover sheet and all other documents specified in the application, must be submitted with a *County Priority Sheet* for new program requests. Requests for additional funds, within the 12-month term of the original agreement, require the *Application Cover Sheet* and the *County Priority Sheet*.

   The program administrator shall also submit minutes of a business meeting within the past 12-months where signatory authorization is given to the Authorized Representative listed on the application cover sheet.

7. Agricultural Development Funds contributed to the program cannot exceed 50%, unless the program administrator or the County Council determines that a reduced match is needed for this program.

   The Council may approve a reduction in the producer's cost-share for this program to an amount **no less than** 25%. This decision and the cost-share percentages shall be indicated on the *County Council Priority Sheet*, which is sent to the Agricultural Development Board with the application.

8. Counties shall place a dollar cap on the maximum cost share per producer [defined by Social Security Number (SSN) / Tax Identification Number (TIN) and Farm Serial Number (FSN)] for **Cattle Handling Facilities** of up to **$3,000 for non-CPH45** and **$5,000.00 for CPH-45** (documented) for the 12-month period from the execution date of the legal agreement between the administrator and the Agricultural Development Board.

9. There is a Lifetime Maximum of $15,000 for this program. "Lifetime Maximum" means that **no producer, defined by Social Security Number (SSN) / Tax Identification Number (TIN) and Farm Serial Number (FSN), shall receive more than $15,000 in this program, retroactive to the beginning of this program**.

10. Any funds requested for administrative purposes shall not be used to replace the funding sources of existing or established salaries and positions. Program administration funds may be used for costs above and beyond normal duties and salaries that are associated with:
    a. Processing of producer payments;
    b. Processing of producer applications;
    c. Completion of program reporting forms;
    d. Promotion of program availability;
    e. Cost of bonding; and
    f. Program compliance activities

    One or more local agencies may combine administrative functions to create more efficient programs of grant administration.

11. The program administrator shall ensure that commingling of agricultural development funds does not occur. Therefore, the program's funds shall reside in a unique and separate bank account from any other account.

    Administrators who are the fiscal agent for multiple counties may keep at a minimum one account per county. However, one account per program per county is preferred.

12. Local program sign-up and advertising shall not occur prior to the execution of the legal agreement between the program administrator and the Agricultural Development Board.

13. Demonstration programs are strongly recommended as part of the Cooperative Extension Service role in the program. The demonstrations should show differences between production techniques and marketing for that particular enterprise. While eligibility to participate need not be explicitly tied to attending a demonstration, it is strongly recommended that these demonstration programs be a component of this model program.

    a. Demonstration program promotion should be evident in the application. It is recommended the demonstration be local and on-farm.

    b. It is recommended that funds be set aside for implementation of the demonstration program, reimbursed by receipt. These costs would not include food for field days, but should be expendables related to the demonstration.

14. Attendance at educational sessions related to the establishment of the local diversification program shall be required for participation in the program.

B. Guidelines for Local Agency Administration

1. After receiving a copy of the executed agreement, there shall be a minimum of two consecutive weeks of advertising with applications being accepted no earlier than two weeks after the date of the first advertisement. This must occur for each sign-up period, if there is more than one sign-up during the duration of the grant agreement.

   For example, when the administrator receives a copy of their executed agreement they may begin advertising for sign-ups. If the first **advertisement** runs January 15, then the first **application** may be taken January 29.

2. An advertisement must, at the very least, be prominently displayed in the county's newspaper where the most farmers will see it. A copy of the advertisement, which included the name and date of the newspaper, shall be submitted to the KADB staff.

3. The application and program promotion and communication plan should be outlined in the agency's application for Agricultural Development Funds. The application shall be submitted to and approved by the program administrator before the producer can receive reimbursement for any costs incurred.

4. A producer application for the program must be developed by the administrative agency. Award of cost-share funds shall be based upon evaluation criteria established prior to application for funds.

   Administrators are strongly encouraged to use a scoring system that gives tobacco dependent farmers priority, by providing points for tobacco dependency. KRS 248.711 (2) (h) states that eligibility for county funds shall require that tobacco farmers be given priority. The program administrator will establish a committee or process to review each application for completeness and score each application according to the evaluation criteria established for the program.

   Suggested evaluation criteria may include, but not be limited to:
   a. Applicant's level of dependency on tobacco;
   b. Applicant's prior receipt of Agricultural Development Funds;
   c. Percentage of personal income from farming.

      The administrator's Project Analyst can provide samples of scoring sheets from other counties**.**

5. In cases where there is a waiting list, it is recommended that extra points be part of the scoring system to ensure that those approved, but not receiving funds in the prior 12-month program, receive priority in the new program.

   Applicants must indicate their intent to be considered in the new program, or their application will not be automatically rolled over into the new program for funding consideration.

6. Deadlines shall be established for producer application and reimbursement periods so

producers have concrete timelines to implement the program. Should they fail to meet the deadlines for reimbursement, they must reapply to be considered for cost-share.

7. Approved producers must submit the Producer Report associated with the program/investments being cost-shared, before reimbursement funds are received.

   These Producer Reports are for the Administrator to use in filling out the reports for the program, and to maintain on-file.

8. The program shall be open to all county/regional producers and shall not be tied to participation in any organization.

   Administrators shall not reject an application solely based on the applicant's residency, assuming funding is available and the application meets the program guidelines. Administrators shall accept an application if the applicant's farm is located in the county and the cost-share will be used in the county, even if the Farm Serial Number (FSN) is registered in another county.

9. Each individual/producer who receives $600 or more shall be supplied an IRS form 1099 or equivalent tax accounting documentation. The program administrator is responsible for distributing the necessary tax information.

10. The program administrator may choose to include eligible model cost-share program expenses for reimbursement on a retroactive basis. However, this retroactive date shall not be more than 12 months prior to the producer's application for this program.

11. Program administrators shall be required to conduct random site visits.

12. Legal agreements between the program administrator and the Agricultural Development Board shall be for a term of 12-months from the execution date of the agreement. There will be no renewals or extensions of this agreement.

13. If funds set forth in the agreement between the Agricultural Development Board and the administrator are not completely utilized within the term of the legal agreement, then remaining funds, including interest, shall be returned to the Agricultural Development Board for redeposit into the county's account.

    Checks should be made payable to the **Kentucky State Treasurer**.

14. Any and all interest earned on funds for this program shall be applied to this program. Any remaining funds, including interest income, shall be returned to the Agricultural Development Board for redeposit into the county's account at the end of the term of the agreement. All interest earned shall be reported on a quarterly basis.

15. **Reporting: Mid-term Reporting**, which includes the *Model Program Summary* and *Fiscal Detail Report*, is required of the program administrator 6-months after the execution date of the legal agreement. Reporting forms can be downloaded from http://agpolicy.ky.gov/funds/program_reporting.shtml. These reporting forms shall be submitted electronically to govkyagpolicy@ky.gov or on a diskette mailed to Governor's Office of Agricultural Policy/404 Ann Street/Frankfort, KY 40601.

A **reconciliation report** is due 60 days after the term of the agreement. The reconciliation report includes, but is not limited to, the *Model Program Summary* and the *Fiscal Detail Report for* any payments made since the last submitted mid-term report. Also, copies of bank statements with check numbers and amounts shall be kept on file according to the legal agreement and presented in the event of an audit. Administrators shall maintain all administrative records for this program for a period of seven (7) years.

The **Close-out** of this agreement may occur when the above is completed and verified, and any programmatic data due from producers is submitted. This final close out may occur at a date beyond the reconciliation, depending on the program.

16. Model program guideline compliance and semi-annual reporting of expenditures are essential to gauging the impact and continuity of the program. Therefore, county model programs may be audited on a random basis. The administrator shall produce all documents pertaining to individual producers who participate in this program, as well as other appropriate financial documents related to this program's account.

17. For this program, the program administrator may **distribute awards** to applicants in **multiple increments**, similar to the "Hay, Straw, & Commodity Storage" program.

C. Guidelines for Producer Application Development by Local Agency

1. A producer application for the program shall be developed by the local agency. The application and program promotion and communication plan shall be outlined in the agency's application for funds under the model program.

2. The producer application must be signed and dated by the producer and must include a date/time stamp from the program administrator, as well as the initials of person logging in the application.

3. Postmarks or dated letters of application shall not override the stamp applied by the administrative body.

4. A producer application from an individual without a Tax ID (TIN) / Social Security (SSN) Number and Farm Serial Number (FSN) will be considered incomplete.

   Tenant farmers or those leasing land where the cost-share improvements will be located should supply a copy of their Schedule F, if they are unable to obtain permission to use the owner's FSN.

   For all capital construction projects/improvements, the land owner **must** be the applicant.

5. The producer application shall clearly state all pertinent requirements, including evaluation criteria.

6. A statement regarding the understanding of requirements by the producer and verification of the producer's total cost-share awarded under this program shall be included with the application. The **Producer Certification Form** (Appendix A) must be

included in the producer application for this program.

D. Producer Funding Guidelines

1. Fund distribution to producers will be on a reimbursement basis.

2. The producer shall supply a numbered and dated receipt indicating buyer and seller information in order to be eligible for payment. Payment shall only be made for eligible cost-share items identified in Section II of these guidelines.

3. Producers who intend to take part in the program shall supply a Social Security (SSN) or Tax ID TIN) number and Farm Serial Number (FSN) to receive payment. Both of these numbers must be supplied to the Agricultural Development Board.

   The Agricultural Development Board recognizes every applicant's right to privacy and understands it's obligation to keep applicant/producer information confidential. Any information provided to the Agricultural Development Board or Program Administrator on individual producer applications for model programs, such as the applicant's Social Security / Tax Identification Number, will be kept confidential by authority of the Agricultural Development Board as granted in KRS 248.701 to 248.727 and by KRS 61.878. The Agricultural Development Board does not disclose any nonpublic personal information regarding applicants/producers, past or present, except as permitted or required by the Kentucky Open Records Act, KRS 61.870 to 61.884 or other law(s).

4. [For capital construction projects] Producers shall provide an annual report on the program and maintain ownership of the property for 5 years past the participation date in the program.

5. Should the producer fail to utilize funds by the program administrator's reimbursement deadline, said funds shall be reallocated to the next available application. Additionally, the producer must reapply to be considered for cost-share funds.

APPENDIX A

Producer Certification Form

(*Producer*: *Please retain a copy for your records. Administrator: Please keep with producer's application.*)

The overall mission of the Agricultural Development Fund is to help the agriculture community diversify their agricultural operations and increase net farm income. To that end, Model Programs were developed to provide cost-share assistance to individual producers through a local program administrator. To judge the success and impact of these programs, as well as monitor the distribution of these funds, the Agricultural Development Board requires the below information. This information is required for a producer to receive funding.

All confidential information provided by the applicant shall be protected by the Agricultural Development Board and the County Agricultural Development Council, as outlined in the model program guidelines and the Kentucky Open Records Act, KRS 61.870 to 61.884.

Name:	
Farm Serial Number (FSN):	**Social Security (SSN) / Tax ID (TIN) Number:**
Farm Address: **Farm County:**	

Funds Received through This Model Program

Please list all funds received through the _____ (specify program) **model program by year in this or any other county.**

2001-2004: $	**2005: $**	**Total Funds: $**

If this form is being used for the Cattle Genetics Improvement Program, **then please list the number of bulls received, in addition to the above funding information.**

# of Bulls:

Note: Please refer to the model program guidelines for 12-month term maximums and lifetime program maximums.

I, _____, hereby certify that I have read all of the terms and requirements for this program and agree to follow the guidelines. I understand that I am required to provide all of the above information prior to participation in this program.

I also certify that I have not received funds for this model program from another county for the above FSN within the last 12 months[1].

I agree to use the funds I receive in the manner intended by the Agricultural Development Board and the Program Administrator. I further agree to provide copies of invoices, receipts, cancelled checks, etc. to the Program Administrator.

I will report the progress and results of these improvement practices and any resulting economic value to my operation.

Signature:	Date:
Name Printed:	

[1] Note: Hay, Straw, & Commodity Storage and Farm Livestock Fencing participants shall not have received funds within the last 18-months.

APPENDIX B: Questionnaire for beef producers

1. Do you have some type of handling facility? YES or NO.
   If you answered NO please go to question 3, otherwise answer question 2.

2. Check/Circle the items that you currently have to handle cattle, and tell us (i) if they are commercial items that you bought from a vendor; (ii) if you built the component by yourself, and if they are (iii) functional or (iv) not.

	Commercial	Self-built	Functional	Not-functional
Head gate	☐	☐	☐	☐
Holding chute	☐	☐	☐	☐
Squeeze	☐	☐	☐	☐
Funneled Commercial crowding pen	☐	☐	☐	☐
Circular crowding Pen	☐	☐	☐	☐
Solid walls on crowding pen	☐	☐	☐	☐
Curved or offset working chute	☐	☐	☐	☐
Solid wall on working chute	☐	☐	☐	☐
Gates	☐	☐	☐	☐
Sorting pens	☐	☐	☐	☐
Loading chute	☐	☐	☐	☐
Scale	Electronic/ Hydraulic	Mechanical	☐	☐

3. Can you gather cattle into a holding area for preventive and curative health practices? YES or NO.
   If you answered NO stop here, otherwise answer question 4.

4. How do you currently hold and restrain cattle for preventive and curative health practices? Please circle as many alternatives as applicable.
   IN A PEN IN A BARN ON PASTURE GRAB OTHER

5. Based on your answer to question number 4, do you think the method you currently use to hold and restrain cattle for preventive and curative health practices are: ADEQUATE or INADEQUATE (circle one).

   If you answered INADEQUATE stop here, otherwise answer question 6.

6. Are your current facilities located such that they are accessible to all cattle in your operation? YES or NO.

7. Would you consider making improvements to your facility? YES or NO.
   If you answered NO stop here, otherwise answer question 8.

8. By looking at the list given in question 2, what do you think is the equipment or part (for example, side walls) that is most important to your current facility?

APPENDIX C: Questionnaire for dairy producers and heifer growers

1. Do you have some type of handling facility? YES or NO.
   If you answered NO to question number 1, please go to question number 3, otherwise answer question 2.

2. Check the items that you currently have to handle cattle, and tell us (i) if they are commercial items that you bought from a vendor; (ii) if you built the component by yourself, and if they are (iii) functional or (iv) not.
3.

	Commercial	Self-built	Functional	Not-functional
Head gate	☐	☐	☐	☐
Holding chute	☐	☐	☐	☐
Headlock stanchion	☐	☐	☐	☐
Catch lanes	☐	☐	☐	☐
Management rails	☐	☐	☐	☐
Gates	☐	☐	☐	☐
Treatment stall	☐	☐	☐	☐
Treatment pen	☐	☐	☐	☐
Loading chute	☐	☐	☐	☐
Hoof trimming chute or table	☐	☐	☐	☐

3. Can you gather cattle into a holding area for preventive and curative health practices? YES or NO.
   If you answered NO stop here, otherwise answer question 4.

4. How do you currently hold and restrain cattle for preventive and curative health practices? Please circle as many alternatives as applicable.
   IN A PEN IN A STALL ON PASTURE GRAB OTHER

5. Based on your answer to question number 4, do you think the method you currently use to hold and restrain cattle for preventive and curative health practices are: ADEQUATE or INADEQUATE (circle one).

   If you answered INADEQUATE stop here, otherwise answer question 6.

6. Would you consider making improvements to your facility? YES or NO.
   If you answered NO stop here, otherwise answer question 7.

7. By looking at the list given in question 2, what do you think is the equipment or part (for example, side walls) that is most important to your current facility?